# CONTENTS

*List of Illustrations*  \( \text{vii}\)

*List of Tables*  \( \text{xxi}\)

*List of Contributors*  \( \text{xxiii}\)

*Foreword*  \( \text{xxv}\)

*Acknowledgements*  \( \text{xxvii}\)

*Editorial Notes*  \( \text{xxxii}\)

1. **HISTORICAL BACKGROUND**  \( \text{1}\)
   - 1.1 Sea-power in western Scotland from prehistory to 1746  \( \text{1}\)
   - 1.2 The Cromwellian expedition, 1653  \( \text{8}\)
   - 1.3 After the wreck  \( \text{14}\)

2. **THE SHIPWRECK OFF DUART POINT**  \( \text{19}\)
   - 2.1 Discovery and project development  \( \text{19}\)
   - 2.2 Date and identity of the wreck  \( \text{25}\)
   - 2.3 Site management and project design  \( \text{27}\)
   - 2.4 Survey and excavation techniques  \( \text{29}\)

3. **ARCHAEOLOGICAL INVESTIGATION**  \( \text{39}\)
   - 3.1 Site description and topographical survey  \( \text{39}\)
   - 3.2 Excavation  \( \text{43}\)

4. **SITE-FORMATION PROCESSES**  \( \text{65}\)
   - 4.1 Site-formation processes  \( \text{65}\)
   - 4.2 Observed site-formation mechanisms  \( \text{67}\)
   - 4.3 Interpretation of site-formation processes  \( \text{74}\)

5. **THE SHIP: STRUCTURE AND LAYOUT**  \( \text{79}\)
   - 5.1 Basic hull-form  \( \text{79}\)
   - 5.2 Hull construction  \( \text{82}\)
   - 5.3 The decorated transom stern  \( \text{83}\)
   - 5.4 The aft cabin interior  \( \text{94}\)
   - 5.5 Oar-port lid  \( \text{100}\)
   - 5.6 Rig and internal arrangements  \( \text{102}\)
6    THE SHIP: OPERATION AND MANAGEMENT
     6.1  Ballast (John McManus)  105
     6.2  Casks and stowage capacity  109
     6.3  Pumps  114
     6.4  Assessment of samples from the bilges (Headland Archaeology)  119
     6.5  The galley  120
     6.6  Animal bones (Catherine Smith)  125
     6.7  Fish bones (Rachel L Parks and James H Barrett)  129
     6.8  Rigging equipment  132

7    SHIP’S ARMAMENT
     7.1  The guns  139
     7.2  The composition and properties of ‘refined’ iron: a metallurgical analysis of Gun 8 (Ian MacLeod)  147
     7.3  The drake carriage  151
     7.4  Disposition of armament  155
     7.5  Working the guns  156
     7.6  Projectiles  161

8    OTHER FINDS AND RELATED ACTIVITIES 1
     8.1  Navigation  163
     8.2  Hand-weapons and related finds  171
     8.3  Lead bullets (Glenn Foard)  178
     8.4  Chest, chest-fittings and box-lid  182
     8.5  The pocket-watch (Lore Troalen et al)  185

9    OTHER FINDS AND RELATED ACTIVITIES 2
     9.1  Pewter: the Scots tappit hens (George Dalgleish, Peter Davies and David Lamb)  191
     9.2  Other pewter finds  197
     9.3  Pottery  198
     9.4  Clay pipes  206
     9.5  Tools and utensils  211
     9.6  Domestic treen  213
     9.7  Lanterns  219
     9.8  Leather  221
     9.9  Weights  223
     9.10  Small objects  225
     9.11  Coins  228

10   HUMAN REMAINS
     10.1  The human remains (Sue Black)  231
     10.2  Isotopic composition of human remains (Wolfram Meier-Augenstein)  241
     10.3  Stable isotopic data analysis for rib and femur collagen (Peter Ditchfield)  243
     10.4  ‘Seaman Swan’ in his contemporary world  244

11   CONCLUSIONS  247

Appendix 1   Ships cited for comparison  252
Glossary  255
Bibliography  259
Index  269

Excavation Plan: please see foldout at end of book